Mr. Michael T. Davis WLPCS Pre-Calculus	2.1 Extensive Polynomial Factoring QUIZ December 13-14, 2017

Name: Solutions / Answers

1. Factor $7y^2+10y+3$ = $(7y+3)(y+1)$

2. Factor $6t^2+13t-5$ = $(2t+5)(3t-1)$

3. Factor m^2-81 = $(m-9)(m+9)$

4. Factor $9k^2-49$ = $(3k-7)(3k+7)$

5. Factor $p^2 - 12p + 36$ $= (p-6)(p-6) = (p-6)^2$

6. Factor $k^3 - 64$ $= (k-4)(k^2+4k+16)$

7. Factor $3k^3 - 48k$ $= 3k(k^2-16) = 3k(k-4)(k+4)$

8. Factor $3x^3 + 6x^2 - 72x$ $= 3x(x^2+2x-24)$
$= 3x(x+6)(x-4)$

9. Factor $p^4 - 13p^2 + 36$ $= (p^2-4)(p^2-9) = (p-2)(p+2)(p-3)(p+3)$

10. Factor $y^4 - 21y^2 - 100$ $= (y^2-25)(y^2+4) = (y-5)(y+5)(y^2+4)$

11. Factor $2x^3 + 3x^2 + 8x + 12$ $= x^2(2x+3) + 4(2x+3)$
$= (2x+3)(x^2+4)$

12. Factor $k^3 - 2k^2 - 25k + 50$ $= k^2(k-2) - 25(k-2)$
$= (k-2)(k^2-25)$
$= (k-2)(k-5)(k+5)$